DOCUMENT RESUME

ED 442 952 CE 080 341

AUTHOR	Gorard, Stephen; Rees, Gareth; Renold, Emma; Fevre, Ralph
TITLE	Family Influences on Participation in Lifelong Learning. Patterns of Participation in Adult Education and Training. Working Paper 15.
INSTITUTION	Cardiff Univ. (Wales). School of Education.; Bristol Univ. (England).
SPONS AGENCY	Economic and Social Research Council, Lancaster (England).
ISBN	ISBN-1-872330-25-8
PUB DATE	1998-00-00
NOTE	31p.; For other Working Papers, see CE 080 328-341 and CE 080 402.
CONTRACT	L123251041
PUB TYPE	Reports - Research (143)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	*Academic Achievement; Academic Aspiration; *Adult Learning; *Continuing Education; Educational Background; Educational Mobility; Educational Opportunities; *Family Influence; *Lifelong Learning; On the Job Training; Outcomes of Education; *Parent Influence; Postsecondary Education; Social Mobility; Sociocultural Patterns; Socioeconomic Influences; Student Motivation; Vocational Education
IDENTIFIERS	Learning Patterns; *Wales (South)

ABSTRACT

This study is part of a regional study in industrial South Wales on the determinants of participation and non-participation in post-compulsory education and training, with special reference to processes of change in the patterns of these determinants over time and to variations between geographical areas. The study combines contextual analysis of secondary data about education and training providers with a regional study of several generations of families in South Wales (a door-to-door survey of 1,104 representative householders), semi-structured interviews, and taped oral histories conducted in 1996-97. This study examines the relationship between patterns of participation in education and training within families and considers the respondents' own explanations for the patterns observed. The analysis uses these three indicators of participation in lifelong learning: the highest lifetime qualification so far; the age of leaving full-time continuous education; and the individual's learning trajectory. The study found that the role of parental background in children's educational attainment and lifelong learning is much stronger than has been posited in other studies. The study found considerable reproduction of learning trajectories within families--strongest among lifelong learners and non-participants, and weakest among delayed and transitional learners. Although the role of family background decreases with age of children, the study suggests that families continue to play a key role in the transition from initial to postcompulsory education and beyond. (Contains 27 references.) (KC)

Reproductions supplied by EDRS are the best that can be made
from the original document.

CE

ED 442 952

CARDIFF UNIVERSITY

PATTERNS OF PARTICIPATION IN ADULT EDUCATION AND TRAINING

A Cardiff and Bristol University ESRC-funded Learning Society Project

WORKING PAPER 15

Family influences on participation in lifelong learning

Stephen Gorard, Gareth Rees,
Emma Renold and Ralph Fevre
1998

SCHOOL OF EDUCATION

CARDIFF UNIVERSITY

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

S. Gorard

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

CE 040 341

2

BEST COPY AVAILABLE

(ISBN 1 872330 25 8)

LIST OF CONTENTS PAGE NUMBER

Introduction	1
Methods used in the study	2
Educational patterns within families	4
Trajectories	6
Second interviews	9
Gendered 'reproduction'	9
Near reproduction	14
Non-reproduction	20
Conclusion	23
References	25

PATTERNS OF PARTICIPATION IN ADULT EDUCATION AND TRAINING

A Cardiff and Bristol University ESRC-funded Learning Society Project

WORKING PAPER 15

Family influences on participation in lifelong learning

Stephen Gorard, Gareth Rees, Emma Renold and Ralph Fevre

This work was funded by ESRC grant L123251041.
The authors wish to thank John Furlong for his valuable contributions.

Introduction

This paper draws on the results of a large-scale study of lifetime participation in education and training. Focusing on the datasets relating to parents and children in the same family, it suggests that despite large changes in educational and training provision since 1945, individual participation trajectories remain very similar within families. The paper also illustrates some of the varied ways in which family influences have been played out, and concludes that there is sufficient evidence here to disturb explanatory models of lifelong participation based primarily on the accumulation of prior learning.

The main purpose of this paper is to examine the relationship between patterns of participation in education and training within families, and to consider the respondents' own explanations for the patterns observed. Several previous studies have examined educational attainment and occupation (e.g. Halsey et al. 1980), while there is a smaller body of literature that considers participation in education or training as its primary variable, and an even smaller body which relates the participation of generations within the same families. In compulsory

education, traditions of similar educational routes (or initial educational trajectories) within families are quite common. The supposedly rational process of school choice, for example, is fundamentally affected by family events long in the past (Gorard 1998), and this may be an important factor if markets in schools do not operate as public-choice theorists have predicted they would. In fact, several commentators have suggested that choice of initial schooling gives middle-class parents a competitive edge (Reay 1998), that they can pass on to their children (Hatcher 1998). Models of reproduction involving post-compulsory education and training on the other hand have generally found much weaker links between the involvement of parent and child (e.g. Cervero and Kirkpatrick 1990). The correlations between parental education and the child's later participation in the longitudinal model created by Yang (1998) are so low that, even when combined with many other predictor variables such as school attainment and attitudinal data, only 23% to 30% of the variance in participation is explained (and this model only caters for adults aged from 16 to 32 be it noted).

Theoretical models of post-compulsory participation are generally complex, involving structural, socio-economic and psychological factors (see for example Cross 1981), but nearly all are variants of an accumulation form. In this version, the best single predictor of later participation is earlier participation (Tuijnman 1991), Nevertheless the correlations are very low, and therefore 'the lifelong education cycle cannot be comprehended without the inclusion and analysis of other factors influencing the accumulation of educational experiences' (Tuijnman 1991, p.283). These other factors include area of residence (a proxy for local economic conditions), gender, and parental occupation as well as education (Gerber and Hout 1995, Zhou et al. 1998). This last factor is the focus of the following paper, where it is suggested that parental patterns of participation in adult education and training are at least as important in determining the patterns of participation for a child, as are the child's own experiences of adult learning.

Methods used in the study

The primary data for this paper are drawn from a large-scale study of patterns of participation in education and training over the last 100 years in South Wales.

Readers are referred to Rees *et al.* (1997) and Fevre *et al.* (1997) for a discussion of the theoretical basis of the study, to Gorard (1997a) and Gorard *et al.* (1997a) for a presentation of the methods used. In summary, industrial South Wales is used as the focus of the study, since it has experienced an economic boom, bust and retrenchment' over a relatively short period - the lifetime of one of the participants. This makes it easier to uncover the links between economic activity and participation in learning. The study was regionally focused to allow the researchers to gain clear descriptions of the changing structures of objective opportunities for participation over 100 years, and this has been achieved primarily by analysis of taped oral histories of families dating back to 1890 in the South Wales Coalfield Archive, by interviews with key participants with long experience in local training, by secondary data analysis, and through the experiences of the researchers in previous locally-based studies. Within the focus area, a systematic stratified sample of 1,104 education and training histories have been collected from respondents aged 15 to 65, identified from the electoral register. The second wave interviewed 200 of the children of those in the first wave, while the third wave collected unstructured narratives via in-depth re-interview of 10% of those in the first two waves. The analysis in this paper concentrates on the 200 parent/child pairs from the first two waves of the survey, and their subsequent re-interviews. Therefore, although the models on which the analysis is based are grounded in a large-scale survey, and all differences cited in this paper are significant at the 1% level using omnibus chi-square tests, it must also be noted that the tentative conclusions drawn here are based on a relatively small sample.

The patterns of participation of all individuals in the survey have been encapsulated in five classes of learning trajectories. A learning 'trajectory' is an overall lifetime pattern of participation which is predictable to a large degree from the educational and socio-economic background of the respondent (Gorard et al. 1998a, Gorard et al. 1998b). The structured interviews attempted to capture all and any episodes of formal learning including one-off health and safety training, leisure reading, and evening classes as well as the more usually reported induction training, and Further and Higher Education. *Non-participants* reported no episodes at all despite, in many cases, numerous and varied vocational changes. *Immature* trajectories describe those still in continuous full-time education, and these individuals are not used in the analysis below. *Transitional* learners

reported only full-time continuous education or immediate post-compulsory work-based training so far. *Delayed* learners have a learning gap after compulsory school until at least age 21, but then reported at least one substantive episode of education or training. The *lifetime* learners reported both transitional and later episodes.

Logistic regression analysis with forward stepwise entry of predictor variables was used to predict these lifelong patterns of participation. The dependent variable is the trajectory and the independent variables are entered in batches in the order that they occur in the individuals life. At birth these variables include gender, year, place, and parental occupational and educational background. By the end of initial schooling these variables include details of siblings, type of schools attended, examination entry and performance, and so on. In this way, the variables entered at each step can only be used to explain the variance left unexplained by previous steps.

The comparison of patterns of trajectories within families was based on the established genre of work which relates occupational categories across generations in the same family (e.g. Blau and Duncan 1967, Goldthorpe 1987). Using standard forms of odds calculations, it is possible to measure changes over class from one generation to the next in a form that takes into account the changes over time in the frequency of occupational classes (Marshall et al. 1997). A similar approach is used here, but replacing the analysis of occupational class with pattern of lifelong participation. It is important therefore to rehearse the significant changes over time in the frequency of each learning trajectory (in Gorard et al. 1998a). Since 1945, non-participation in post-compulsory education and training has declined substantially, while delayed participation has declined slightly. Lifelong learning has increased in frequency, but the largest growth has been in transitional participation.

Educational patterns within families

The analysis here uses three indicators of participation in lifelong learning: the highest lifetime qualification so far, the age of leaving full-time continuous education, and the individual's learning trajectory. The first of these indicators is

the highest qualification of origin (parent) and destination (child) as shown in Table I. 'A level' refers to A level equivalent qualification or above, using the DfEE standard classification for National Training Targets (also cf. Marshall et al. 1997). 'Elementary' refers to qualifications below A level, including employer-based certificates. The frequency of each level of qualification is higher among children than their parents, but despite this growth in qualifications more children have the same, or lower, level of qualification as their parents than do not (54%). There is clearly some form of family relationship here. A similar, though somewhat weaker, pattern is observed when qualifications of the smaller number of grandparents and their grandchildren are considered (i.e. the parents and children of the respondents). Thus, whatever the mechanisms of this relationship are, they continue over at least three generations. All of these patterns are observable for both male and female respondents, and although men are generally more highly qualified in all three generations, the biggest change has been the increase in the qualifications of women over time. Also, the table of reproduction, like that for occupational class, is more similar between each generation when it contains only cases of one gender.

Table I - Qualification of parent and child

Parent\Child	None	Elementary	A Level	Total
None	798 (44%)	538 (27%)	490 (28%)	1826
Elementary	52 (18%)	99 (32%)	103 (50%)	254
A Level	72 (20%)	135 (31%)	195 (49%)	402
Total	922	772	788	2482

The age at which children leave full-time continuous education (FTCE) has also increased over time. Although the age of children leaving FTCE is predictable from the age at which their parents left, the relationship is a relatively weak one. For example, the correlation between the ages of fathers and their children on leaving FTCE is +0.33, which means that the relationship explains only 10% of the variance in the figures. This relationship is getting weaker over time. It may be that the picture is confused by the changing forms of participation over time, as training moves from employer-funded work-based provision to state-funded and college-based forms. Formal education measures only encapsulate one part of

an individual's education and training history, and it is partly for this reason that the project uses the concept of lifelong learning trajectories.

Trajectories

The sample included 200 respondents whose parents were also part of the sample, and since all 1,104 respondents have been successfully assigned a trajectory from a typology of eleven, it is possible to compare the relationship of trajectories within these 200 families (see Gorard et al. 1998a for description of all eleven). Trajectories encompass all formal learning episodes in a person's life, from adult evening classes to one-day health and safety courses. Since there are a maximum of only 200 pairs and some of these cannot be used since the child is still in FTCE, the trajectories have been collapsed to four for the purpose of analysis (see Table II).

Table II - Trajectory of parent and child

Parent\child	Non-particip.	Delayed	Transitional	Lifelong	Total
Non-particip.	20 (31%) (61%)	5 (8%) (42%)	25 (38%) (43%)	15 (23%) (29%)	65
Delayed	5 (25%) (15%)	-	10 (50%) (17%)	5 (25%) (10%)	20
Transitional	3 (16%) (9%)	4 (21%) (33%)	4 (21%) (7%)	8 (42%) (15%)	19
Lifelong	5 (10%) (15%)	3 (6%) (25%)	19 (37%) (33%)	24 (47%) (46%)	51
Total	33	12	58	52	155

Several patterns are evident in the table. While the proportion of lifelong learners (those undertaking work-based training or full-time education immediately after initial schooling and at least one other episode of learning) remains constant over one generation, all other trajectories show large changes in frequency. In general, non-participation and delayed learning (return to education or training in later life) have declined, while transitional participation has doubled in one generation. Some of this apparent increase may be due to the childrens' trajectories

encompassing fewer opportunities for later learning than their parents so far (i.e. they are right-censored). However, this overall trend is the same as that from other analyses using all respondents (see above). Intriguingly, transitional participation is now the modal trajectory for the children of parents in the non-participant and delayed trajectories, while the children of transitional learners themselves are more likely to be lifelong learners. The numbers involved are small, but a tentative suggestion can be made here that may soften the rather pessimistic analysis of changes over time presented elsewhere in this project. Increases in participation in post-compulsory education since 1945 have not, so far, produced a proportionate increase in lifelong participation. Nevertheless there is a slight indication here such an effect may take at least one generation to be noticeable. That is, the massification of FE and HE has not produced a generation of lifelong learners, but it may help to do so for their children, since there are more transitional learners over time and the majority of children of transitional learners are actually lifetime learners.

One would expect there to be more lifelong learners in the younger generation than the older one. There are, but it is noteworthy that half of the children who are lifelong learners have parents who are lifelong learners themselves (46%). Similarly, more than half of the children who are non-participants have parents who are non-participants (61%). It is clear that, for whatever reason, patterns of participation 'run in families' to a great extent.

Tables III and IV examine the same data on trajectories in an even more collapsed form. In the first example, all trajectories involving any participation after initial schooling are grouped together (participants), and contrasted with those cases reporting no formal learning episodes (non-participants). In the second example, all trajectories other than lifelong learner have been grouped.

Table III - Participation of parent and child

Origin\Destination	Participant	Non-participant
Participant	77	13
Non-participant	45	20

From this table it can be calculated that the odds of participation if one's parent also participated in post-compulsory education and training are (77:13)/(45:20) or 2.63. At this level of analysis, reproduction of patterns of participation within families is stronger, but it should still be noted that due to the increase in transitional, front-loaded participation, the majority of children of non-participants are participants. When the same analysis is applied to lifelong learning, supposedly the target of much post-war government policy (see Gorard et al. 1998c, 1998d), the lack of overall progress is more apparent (Table IV). The odds of being classed as a lifelong learner if one's parent were is (24:27)/(28:76) or 2.41. A clear majority of people are not lifelong learners, even more so if one's parents are not lifelong learners.

Table IV - Lifelong learning of parent and child

Origin\Destination	Lifelong learner	Not lifelong learner
Lifelong learner	24	27
Not lifelong learner	28	76

Those who become lifelong learners without a parent of similar trajectory are generally younger than the others in the table (so the differences cannot be assigned to right-censoring of life histories), with no children of their own, and living in the coalfields north of Cardiff. They are mostly males, from atheist and non-conformist religious backgrounds. All took some qualifications at age 16, and most gained the equivalent of five or more GCSE at C and above. Those with lifelong learner parents who have not become so themselves are slightly older, often with several children, with the first child coming as early as 18, and living in the former steel region of Neath Port Talbot. They are more commonly female, from Anglican families. None has five or more GCSE at C and above. Thus, as well as being trajectory determinants for individuals, age, gender, area of residence, initial education, and having children are all also correlates of those who are 'mobile' in terms of trajectories within families. An accumulation theorist might claim that the latter differences between the upwardly and downwardly mobile groups are due to their differing qualifications from initial education, but it has already been shown that the qualifications themselves are predictable from the other background characteristics (Gorard 1997b).

Second Interviews

A difficulty that emerges in attempting to explain the patterns shown above, by analysing the narratives from second interviews, is that there are very few references to older family members in the context of later formal learning (although partners, friends and children are frequently referred to as both barriers and stimuli for later participation). This may be the fault of the interview schedule, but it is perhaps more likely to be a natural phenomenon that respondents referred to their parents when discussing the transition from initial schooling, while they more often referred to their dependents when discussing decisions about participation in later life. For this reason, the majority of the discussion that follows relates to only one component of lifelong learning, soon after initial education. In 20 of the interviews, when the respondents talked about their parents and children, they were talking about another participant in the study. In these examples, the study has therefore collected two perspectives on four generations in each family, and these families are used to introduce the themes presented here. One of the early conclusions that can be drawn from these accounts is the confirmation that although respondents may be occasionally inaccurate about themselves, they are generally even less accurate in their accounts of each other (cf. Pifer and Miller 1995)

Gendered reproduction

As shown in the overall survey analysis, and in previous publications (e.g. Gorard et al. 1998e), there is clearly a gendered pattern in family attitudes to lifelong learning. 'Reproduction' here is used to refer to the influences producing identical learning trajectories for both parent and child in the same family. Such reproduction is nearly always gendered. In one family, the 62-year-old father had a succession of varied jobs after leaving the parachute regiment, including several such as draughtsman for which he had no qualifications, before returning to higher education much later. He says of his transition to the workforce at age 15:

> The headmaster told us on our last day there that if we could add up our wages, check our wages, he thought our education had been sufficient in so many words.

> Well at that time in that area there was loads of work around... I didn't see anything except working in one of the local factories or on the buildings like my father.

His wife had stayed on in full-time education much longer, eventually leaving to become a housewife and mother. Perhaps partly due to her influence, and what are described as her 'thwarted' ambitions, he later took a degree intending to be a Science teacher. His sons now have low skill manual jobs and no qualifications, while his daughter has taken an Open University degree during her pregnancy. Even in the previous generation, the respondent's father had left school to get a job, while his mother had tried to continue her education with a place at a 'posh' school. So for three generations of this family, the women have a more extended education than the men, but in the first two generations, so far, the men have had greater opportunity for work-related training.

A similar picture emerges from the family of a 53 year-old woman. Her mother and father had no qualifications, her mother never had a job, while her father was a fitter. She has had many low wage jobs with no training, although she had gained A levels before leaving full time education. In her own account she and her husband were not very supportive of their daughter. She would have liked her daughter to continue to HE, but:

> My husband says 'well if they don't want to learn just leave them alone. They'll learn the long way'.

The daughter, who is still only 17, has dropped out of her A level and says of her parents:

> Well, once I had a job they were all right.

A 21 year-old man acknowledges the influence his parents, among others, have had on his educational choices, and explains how he ended up in the same career as his father. On taking A levels:

> Yeah, that's the natural progression - I didn't really want to go into employment at that age... That's always been instilled into me to get an education first... by my parents... very few of my friends went into employment at that age.

As a result he started a teaching degree:

> Well, my mother was a teacher, that was a big factor like, but saying that I've always... my mother used to come home and tell me stories about the satisfaction when a pupil got something right... and I was listening one night and thought it sounds a worthwhile job.

But he dropped out of that to become a policeman like his father:

> I think I've been a little naive. I've never really thought and planned. Like my choices, I've never really ventured outside my parents... My father used to talk to me about his job and that seemed fun as well.

Another man of similar age was asked what options he would have had if he had left school at 16.

> Leave school? Get beaten up by my dad for starters...No, I wasn't brought up to know about any other options. I just expected to do A levels....

Explaining why he has chosen medicine as a career:

> It's just that I've lived with this all my life. My Dad's a doctor and I've been to his surgery... I just always enjoyed seeing what my Dad did and the work he was doing.

However, in many ways he suggests that it is his mother, who also has postgraduate qualifications, who has been the biggest direct influence on his trajectory. In relation to subject choices, he states:

> She's the one that really kind of steers me. She's the one who said - like my Dad was more laid back. He like said if there was something else I wanted

> to do he'd go along with it and let me make my own mistakes. Whereas my Mum was always there to stop me making silly mistakes. She's always set her heart on me being a doctor... She's kept me on the straight and narrow... I'd get these strange ideas in my head like I wanted to be an architect or something... When I told my Mum she just pointed out that these were just little fads... Medicine is the right choice I guess.

A man of 48 explained how his father had helped him into printing college:

> I knew what my trade was going to be basically from the age of five because you see it ran in the family. My grandfather and father was a printer in the arts like.

'Reproduction' also takes the form of non-participation in education. A 44 year-old woman had left school as soon as possible in order to leave home:

> There were 13 of us and we all left home at 16. Our dad was... we never got on with our father.

Her daughter also left education at 16. Both mother and daughter now work in the same factory. Her son is currently unemployed, and although he originally moved to FE college, he dropped out to work as an untrained mechanic.

> My old man's a bus driver and I've always been involved with cars and buses and stuff like that.

A 47 year-old man, whose father was a coalminer, had left school at 15 because:

> It's just the normal thing I think around here unless I went to a grammar school or whatever.

In some cases, both generations of the family are illiterate. In one example, both son and father attended the same literacy class, to no apparent effect. Not only are many jobs not open to this pair, all other learning opportunities they have sought, and the son in particular is ambitious to be a care assistant, have rejected them. A woman of 37 was illiterate until very recently, because of her parents in her

opinion. She learned to read with her current partner, and proved it by reading the Mirror to the interviewer. Of her parents:

Interviewer:	Did they encourage you at school?
Respondent:	No. It was never the thing then was it?
Interviewer:	Why do you think that was?
Respondent:	I don't know. I suppose it was the way my parents were bought up.
Interviewer:	Did they not think it was important?
Respondent:	Not in those days it wasn't was it?

Three overall patterns of parental reproduction of trajectories have emerged from the second interviews. First, there are the parents who would not countenance an education of the sort they never had, whatever the intervening societal changes. For example, a man of 56 recalls how his father made all the major decisions about transition from school at 15.

> School trips, I could never go on... He organised the job for me and took me out of school before I could try... I wanted to stay in school... to try my O levels... but you couldn't get an apprenticeship over 17 so... he said I've got a job for you in W H Watts... I was there about three months and I went home one day and he said I've got you a job at Ivan Waters... It'll save you the busfare from Bridgend. He wants you to start next Monday.

Second, there are the parents who cannot imagine an education other than the one they had. A woman of 30 recalls how her parents had met at university and the influence that had on her choices:

> I think they thought it would be a better school... it was a religious school as well, a convent school. My mother went to a convent school herself and she felt quite strongly that she wanted us to have the same experience... I think they really expected us to go to university. They expected it and we were really forced into it, and it was always held out as a really enticing prospect. You know, if you do well you will be able to go to university and going to university is great.

Third, there are families where everything can be provided for a formal education that the parents never had, except the necessary finance. The ensuing reproduction is clearly unintentional. A woman of 40 followed the route of informal learning, when the economic situation meant that her early educational promise was not fulfilled:

> My family, especially my grandfather, very big... no he was more than a socialist, he was actually a communist. He was an activist for the Communist party in the Rhondda. He did quite a lot for education in the you know... very, very staunch union... I spent most of my very young years with my grandfather. I mean I could read when I was three... Yeah my mother had to stop buying the News of the World because I could read it... I was not allowed to read comics. If I wanted to read it had to be a book.
>
> If I'd worked harder I think that I could have got... you know I've got 4 O levels, I could have got a lot more but it was just at the time really, uh, all living at home with mum. Mum was a single parent. She was widowed at 27... My dad died when I was eight, and there's my sister and brother... quite a difficult time then... and when I was going through my O levels and things like that my grandmother came to live with us because she was ill... you know we all took shares in sort of helping... and my mother also looked after, well cared for the housework, with her brother who was a bachelor who lived with my grandmother just a few hundred yards away.

Near reproduction

The last example shows that the difference between repeating the formal educational route of a parent, or finding a new one is often very slight. 'Near reproduction' is used here to describe the situation where the trajectories of both parent and child in the same family are related without being identical. These examples can help to illustrate the point made by the survey results that families are important as determinants of participation, but that there are many other influences and boundaries affecting an individual's decision. A 51 year-old woman had wanted to be a nursery nurse, but was frustrated by the economic position of her family. Having attended a secondary modern school and obtained

no qualifications, she has been a full time mother with many and various informal learning activities, such as becoming an organist and running the local mothers' union. Her sister exemplifies the relevance of initial schooling since although a twin she went to the local grammar school, gaining O levels and continuing to train as a pharmacist. However, that difference in participation did not last, as she dropped out of training and joined the police force. The respondent's daughter is now intending to become a nursery nurse one generation later. Her son is considering university, but is not supported by his unqualified father who would rather he got a job. His parents 'left it up to me' to go on and take A levels at a local college, and it was 'sort of my decision' but

> Everyone I knew was going on to do A levels or things like that at Neath Tech. My mother says they never set up anything to pay for me to go to college because they really thought I'd be thick like them. And my sister's going now as well, so they're getting a bit worried about money you know.

A woman of 40 had a very determined father, who ensured that she stayed in school, eventually gaining a higher education qualification. Her father had little formal education, but according to her account she is now trying to repeat her father's role with her son:

> I personally didn't really want to stay on in school but my father was one of these people who said you must go on and you must stay at education, and he pushed us all three of his children on to further education... he was a self-made person. He came very much from a working class background but you know by the time he had retired, he was director of his own company. So I suppose he knew the values of education and wanted it for us... No, no he was not educated... Somebody came along with an opportunity to go nursery nurse training in Cardiff which I could do at the age of 16. So I decided that was it. I was gonna do that... He wouldn't let me go, he wouldn't let me go...

However, her son of 17 claims that he has always planned to go on to higher education, and is thinking of training as a teacher, but that his mother does not seem to take any particular interest in his work and does not mind what he studies:

> When I get my reports they sit me down and talk to me but that's about it.

Another man said:

> I basically wanted to leave school and start earning money.

He moved to an apprenticeship with Port Talbot Steelworks, which he heard of as his father works there. Although both parents left school at 16 as well, his mother later took an A level and his father returned to take a degree. Although the respondent took no qualifications at school he later took OND and HNC at work, thus becoming a 'delayed learner' like both of his parents.

As with gendered reproduction, there are several stories of parental pressure not to continue with any education, thus conforming to the existing family pattern. For older respondents the fears of extended education surfaced as early as the age of 11. Another interesting thing to note is that the older respondents talk of getting a job because they were plentiful but the family was poor, while they encourage their own children to study since jobs are now harder to come by, but presumably the family can countenance supporting an extended initial education. For example a man of 57 says of his parents:

> Thinking back it did do a lot of damage really education-wise like you know and when it became to my 11+... I was in a very poor family. My mother and father was afraid in their hearts that I would pass for County school because it meant then that they would have to get me a uniform where I could go with the holes in the back of my trousers to an ordinary school... But then you had to have books and your satchels and you know so they kept me back from my 11+... I didn't go to school that day... As soon as I was old enough to work they wanted me to work...

And of his son:

> Like at the moment now I wouldn't say we were, we're just getting by. He's not coming out of school until he's 18 you know. It's as simple as that, because we know how important it is especially today.

A woman of 44 tells of a similar reaction to the 11+, and to sixth from entry.

> My father was a miner, and I think my parents, if anything, were a little bit intimidated by it like when I passed my 11+. Plus all the other kids had new bikes, my mother said 'Oh my God how can we afford the uniform'?... My mother's, my parents' reaction again was how can we afford to keep you at school with four brothers?

Other families were almost opposite in their reactions, perhaps because some could afford to be, but the story of one 53 year-old woman illustrates the determination of some mining families to learn whatever the obstacles, in a way which is reminiscent of stories from the archive material in this study dating from the first part of the century (e.g. Gorard et al. 1998e).

> My parents were all for education... at that time but also unless you had money you couldn't go on in schools... So he actually went down the mines at 14. But what he did he went to evening classes and he walked five miles over a mountain every week to a Technical College in the next valley, no lights in the road, all through the winter and everything and got his... whatever qualifications he needed to do mining and engineering and he got his degree at 30... It's something similar to the likes of the Open University today.
>
> He always used to say 'I wish I'd had your opportunity'... They didn't force me. They didn't have to because I wanted to do it.
>
> I do feel that my education as far as fulfilling myself has been a bit of a waste. I feel I would have liked to have done more with it, but at the time it wasn't possible because you didn't have childcare... It's a full-time job and my husband was not keen.

A man of 39 whose father and grandfather were steelworkers and mother and grandmother were housewives, was pressurised to stay in further education:

> I think to get out of the rut really. To get out of the situation of being a steelworker, because even though there's a certain amount of pride attached to being a steelworker if you like... there's the thought that there's something better.

Although he defied his parents and left school at 16 to join the steelworks and earn money, he returned to education later and is now a teacher.

A similar example of the enormous respect for education among the families in the South Wales coalfield has already been published (Gorard et al. 1997b).

> If you want to know what my father wanted me to be, I got the name of Caron Wyn.... because he could always see it in that light. My father was secretary of the chapel, then he was deacon of the chapel.... I think he had visions that I would become a minister. He was never disappointed that I didn't mind but he always teased me - "y parch".... that's why he gave me the name.
>
> I think the pressure is there. In a little village like where I come from.... I mean passing the 11 plus was a big thing.... if you failed the 11 plus you were finished. It wasn't just [pressure from] parents with us, because when I was in Brynamman the difficulty I had was finding time to do homework believe it or not. There were so many things going on there it was unbelievable.
>
> When I was in school we won the Urdd Eisteddfod play ten years on the trot.... Mind you look at the people we had there... We had debating societies every Monday and we had to prepare a speech.... It was a lovely place to grow up in. You were influenced by your peers as well not just your parents.... The only time I was ever locked in was to have piano lessons. I had recitation lessons.... my father decided I was going to have singing lessons.
>
> And I think it held you in good stead later on.... you were never afraid to stand in front of an audience. I mean you did so much of it in chapel and in young people's and the Urdd.

> Amman Valley Grammar school.... in those days produced teachers and preachers.

Coming from a family of miners with a love of reading, he became a teacher of technology by correspondence. His son is now a barrister:

> Both my parents are teachers so I needed a bit of prodding now and again and they gave it to me... I'm the first person in the family to go to university. I had a great uncle who would have been accepted to do medicine at Edinburgh but was killed in the war as a pilot, but other than that I'm the first.

One young respondent left school at the earliest possible opportunity, just like his parents, and neither he nor his mother have participated in any formal learning episodes since then. However, the son has picked up interests in gardening from his grandfather and in engineering and automobile mechanics from his father, and learnt his 'trade' of carpet-fitting from his father's best friend. Significantly, although labelled a non-participant in education and training, this man has learnt skills in all three areas that are used by his friends and family, emphasising again the importance of recognising informal learning (cf. Gorard et al. 1998f).

Some families show near reproduction of participation patterns broken only by the experience of a child's education, especially for a mother. A man of 64 left school at 15, joined the army, worked in the tin industry and became a caterer (a similar pattern to his own father). His parents were apparently not very supportive of his school and happy for him to leave:

> I don't think they cared one way or the other. They used to encourage you in as much as they would buy you tidy clothes... to let you go to school but once you left the house... about 8:45 they wasn't worried until you came home then whether you'd been in school or not.

Of his children, all left school as soon as possible. One son joined the army, and worked as a bus driver, another is unemployed. His daughter worked with him in

catering, but expressed some interest in further formal learning by visiting her own son's school:

> I had thought about going back to school... When my oldest boy, they had a computers class in the school and me and a friend went there and thoroughly enjoyed it... They taught us about disks, how to use the computers, what it's there for, all different techniques, printers...We could have got a merit and would have gone to Neath College to get it, but we didn't get that far.

A somewhat older woman had a similar experience, and is now a 'delayed learner' despite some initial resistance from her partner:

> Mark [her son] was having a few problems with Maths and er Barbara comes to the school once a week in the morning, and you could go in and do these sort of classes - English, maths, computers, whatever you wanted to do... Yes, parents. So I thought, I'll go in, because as I say I'm hopeless at maths. I used to sit in class and just couldn't understand it you know?
>
> [About her husband] He was a bit apprehensive of being a childminder, and he was apprehensive about me doing the trampolining course. He was convinced I was going to end up with a broken neck.

Non-reproduction

'Non-reproduction' is used here to refer to families in which the parent and child have markedly different patterns of participation. They therefore illustrate two key points. First, and perhaps most obviously, there are some exceptions to the patterns described above. Second, even where children follow different paths from their parents, this is frequently described as being heavily influenced by the parent anyway. Most families with markedly different trajectories within two generations are 'upwardly mobile' (that is towards greater lifetime participation). For example, a 65 year-old woman left school at 15, but remained under the influence of what she described as a typical strong Welsh mother, and a literate coalmining father with no formal education. She was still seeking the approval of her mother in order to participate in further education when her own daughter

was 15. She worked to bring up her family, and returned to take her O levels only when she was aged 40, since her mother did not approve of child care. She:

> Would have liked to join the navy at 18... Oh no way, my parents wouldn't let me go.

So she worked for the Coal Board, where men employees were given free coal for their families but women were not. This was one of the incidents that she believes made her and her daughter a 'feminist'. Her daughter is now a professor of astro-physics.

As evident from the summary data, families can also be 'downwardly mobile' in terms of their training trajectories. One 35 year-old man bemoaned the fact that he did not do what his father and grandfather had done.

> Well his father was a stonemason [as well]. My father started his business when he came out of the war, with his father... He did a lot of building around Bridgend... for 30 odd years I suppose... [If I had stayed on] I probably wouldn't have been a refuse sorter now. I'd probably be a stonemason now... I know so. I dropped a gooly I did but there we are.

There are two very common stories which involve greater participation for the younger generation. In the first, simple, form the parent wants the child to do more or better than they did, perhaps to avoid the conditions of work that they had to endure.

> My mother and father would have been devastated if I hadn't passed, totally devastated. My father was a collier but the attitude in our house was if you don't learn you won't get on, and you'll go down the colliery. [woman, 54]

A 50 year-old man whose parents had left school by 14, had become a teacher.

> I think they most probably saw it as a way to help us get a job most probably and have a better standard of life than they did.

> I think my mother would have done far better if she had been allowed to stay in school. She was the eldest of 10 children and obviously she had to either look after the children or go away and make money to send back to her mother... My father was quite widely read, and would have done quite well if they had been allowed to go on...

More recently, a 19 year-old woman whose parents had left school at 15 reported:

> I think my parents expected me to [go to university] and I just expected myself to go then. There was never any question whether I would go or not.

And a 31 year-old man, whose father was a turner with no formal qualification, said:

> In the end I didn't get a job so I had to go back to Tech. I had to go back to full-time education. I applied for a load of apprenticeships. I didn't get any of those. Then after that I applied for like labouring jobs. I didn't pursue that too far really because my father had talked me back into... going back into education. He could see that I was wasting my time.

The second, and more complex, form of the story is where the respondent describes a change of attitude over one generation. Several families had similar stories, where the respondent had left school and never trained at a time when local jobs were apparently plentiful, and were encouraged to work by their parents for short-term economic reasons. The respondents are now encouraging their children to stay in education or training, because jobs are scarcer and times are apparently easier. A 42 year-old man left school at 14, to work with his father, and now pays for his children to have extra private tuition for their examinations so that they 'don't have to sweep the streets'.

> The teacher went on to my father about me taking the 11+ and he said well if he doesn't want to do it... I didn't do it.

> Well I got a job as a mechanic with the same company that my father worked for so... but I don't think that's the case today...
>
> I think things have changed a lot since then. You need qualifications when you go for a job. You know, I've got a totally different attitude now to what I had then because my kids are coming up. Well my daughter has just tried her GCSEs.

A woman in a similar situation explained:

> What you have to bear in mind, when I came out of school the jobs were plentiful. So, it wasn't a big deal if you didn't have great qualifications because you could get a job easy enough anyway.

Conclusion

The determinants of participation in the present study are calculated rather differently than is usual. Instead of selecting explanatory variables simply in terms of the amount of variance in participation that they can explain (the stepwise method), the independent variables are added to the model in the life order of the respondent. On this analysis, the accumulation hypothesis appears much weaker and the role of parental background appears much stronger (see Gorard et al. 1998b). Thus, the reason why early learners are more often lifelong learners could be the same as the reason for their early participation, and based on family background, gender, and regional conditions. This would be as convincing an explanation as the accumulation model. This may explain in part why the results of this analysis are different to comparable studies using only 'snapshot' techniques. For example, while initial educational success may be a good indicator of later participation according to some accounts (e.g. Tuckett 1997), the success itself can be at least partly predicted by social and family background in the model proposed here.

In the period of the study used as the focus for this paper, approximately 1945 to 1996, expectations and opportunities for formal education and training clearly increased. The increase has been mainly in full time continuous education, with a

fairly static picture of work-related training, and a recent decrease in delayed and recreational learning (Gorard et al. 1998f). Nevertheless, front-loaded, government-funded provision (FTCE) provides the greatest single change. Some respondents took advantage of these increased opportunities, and others did not. This paper suggests that at least part of the reason for these differences can be traced back to family influences which are economic, cultural, intellectual or religious in nature. Part of the reason for the similar patterns in each generation of a family could also be that they are subject to the same local economic conditions, since geographic mobility in the area is low. This is less likely though because the sites were chosen as a 'social laboratory' on account of their rapid economic changes from relative boom of coal and steel, to bust, and now some regeneration within the working life of one of the older respondents. Therefore even those families who lived in the research sites continuously (the overwhelming majority) may have been subject to markedly different 'economic imperatives'.

The number of family pairs is relatively small, and therefore the findings must be seen as more indicative than conclusive. Nevertheless, there *is* considerable reproduction of learning trajectories within families when calculated as odds ratios. This reproduction is of a specific nature - strongest among lifetime learners and non-participants, and weakest among delayed and transitional learners. The mobility of trajectories is much greater in the latter families, and is the main area of change over time. In very simple terms, traditional sociology of education analyses of compulsory education have emphasised the role of the family in determining an individual's route, while analyses of post-compulsory participation have emphasised barriers, opportunities, and above all the accumulation of prior learning experiences and qualifications. The two component model previously proposed as part of the present study supports both of these views to some extent. Clearly, the role of family background decreases with age, but there is sufficient evidence here to suggest that families continue to play a key role in the transition from initial to post-compulsory education training, and probably beyond. It may be hypothesised that families, as well as educational experiences, are important influences in the creation of relatively stable learner identities (see Rees et al. 1997). However, testing this hypothesis will have to remain the subject of a further paper.

References

Blau, P. and Duncan, O. (1967) *The American occupational structure*, New York: John Wiley and Sons

Cervero, R. and Kirkpatrick, T. (1990) The enduring effects of pre-adult factors on participation in adult education, *American Journal of Education*, 99, 77-94

Cross, K. (1981) *Adults as learners: Increasing participation and facilitating learning*, San Francisco: Josey Bass

Fevre R., Furlong J., Rees G. and Gorard S. (1997) *Some sociological alternatives to Human Capital Theory: Patterns of participation in adult education and training. Working paper 3*, Cardiff: School of Education

Gerber, T. and Hout, M. (1995) Educational stratification in Russia during the Soviet period, *American Journal of Sociology*, 101, 611-660

Goldthorpe, J., Llewellyn, C. and Payne, C. (1987) *Social mobility and class structure in Modern Britain*, Oxford: Clarendon Press

Gorard S. (1997a) *The region of study: Patterns of participation in adult education and training. Working paper 1*, Cardiff: School of Education

Gorard S. (1997b) *Initial Educational Trajectories. Patterns of participation in adult education and training. Working paper 8*, Cardiff: School of Education

Gorard S., Rees G., Furlong J. and Fevre R. (1997a) *Outline Methodology of the study: Patterns of participation in adult education and training. Working paper 2*, Cardiff: School of Education

Gorard S., Rees G., Fevre R., and Furlong J. (1997b) *Learning Trajectories: Some voices of those in transit. Working paper 11*, Cardiff: School of Education

Gorard, S. (1998) Reflections of the past: the generation of school choice, *Education Today*, 48, 3, 25-32

Gorard, S., Rees, G., Fevre, R., and Furlong, J. (1998a) Learning trajectories: Travelling towards a learning society?, *International Journal of Lifelong Education*, 17, 6

Gorard, S., Rees, G., Fevre, R., and Furlong, J. (1998b) The two components of a new Learning Society, *Journal of Vocational Education and Training*, 50, 1, 5-19

Gorard, S., Rees, G., Fevre, R. and Furlong, J. (1998c) Society is not built by education alone: alternative routes to a Learning Society, *Research in Post-Compulsory Education*, 3, 1

Gorard, S., Rees, G., Furlong, J. and Fevre, R. (1998d) Progress towards a Learning Society? Patterns of Lifelong Learning, *Innovations in Education and Training International*, 35, 4, 275-281

Gorard S., Rees G., Fevre R., Renold E. and Furlong J. (1998e) A gendered appraisal of the transition to a Learning Society in the UK, in Benn, R. (Ed.) *Research, teaching and learning: making connections in the education of adults*, Leeds: Standing Conference on University Teaching and Research in the Education of Adults

Gorard, S., Fevre, R., Rees, G., Furlong, J. and Renold, E. (1998f) *Home and away: the decline of informal learning in South Wales 1900-1997. Working Paper 13*, Cardiff: School of Education

Halsey A., Heath A. and Ridge J. (1980) *Origins and Destinations: Family, class and education in modern Britain*, Oxford: Clarendon

Hatcher, R. (1998) Class differentiation in education: rational choices?, *British Journal of Sociology of Education*, 19, 1

Marshall, G., Swift, A. and Roberts, S. (1997) *Against the odds? Social class and social justice in industrial societies*, Oxford: Oxford University Press

Pifer, L. and Miller, J. (1995) *The Accuracy of Student and Parent Reports About Each Other*, presentation at American Educational Research Association Annual Conference, San Francisco

Reay, D. (1998) Engendering social reproduction: mothers in the educational marketplace, *British Journal of Sociology of Education*, 19, 2, 195-209

Rees, G., Fevre, R., Furlong, J. and Gorard, S. (1997) History, place and the learning society: Towards a sociology of lifetime learning, *Journal of Education Policy*, 12, 6, 485-497

Tuckett, A. (1997) An election shopping list for lifelong learning, *Times Educational Supplement*, 14/3/97, p. 32

Tuijnman, A. (1991) Lifelong education: a test of the accumulation hypothesis, *International Journal of Lifelong Learning*, 10, 275-285

Yang, B. (1998) Longitudinal study of participation in adult education: a theoretical formulation and empirical investigation, *International Journal of Lifelong Learning*, 17, 4, 247-259

Zhou, X., Moen, P. and Tuma, N. (1998) Educational Stratification in Urban China, *Sociology of Education*, 71, 199-222